



EERA JP-AMPEA Cross linking workshop on Artificial Photosynthesis

"The main purpose of this workshop is to draw roadmaps for the development, characterization and modelling of catalysts, materials and devices for artificial photosynthesis to be implemented within H2020 and beyond."

- 1: Roadmapping for research in artificial photosynthesis within AMPEA to make the connection on a mid-term time scale (5-10 years) with H2020 and to set the stage for future call texts. This is a continuation of the work initiated in Mülheim.
- 2: The creation and consolidation of an artificial photosynthesis society.
- 3: A tentative text/scheme for an IRP call as a possible funding scheme for the Artificial Photosynthesis activity in AMPEA.

Tuesday, June 11

Introduction and setting the stage

- 9.00 Introduction to the workshop (Huub de Groot);
- 9.15 General presentation of the AMPEA JP (Frederic Chandezon);
- 9.30 The Research Field of Artificial Photosynthesis: A general introduction (Stenbjorn Styring)
- 10.15 IRP as a possible funding scheme for the Artificial Photosynthesis (AP) activity in AMPEA (Ingo Bunzeck, EERA secretariat);
- 11.00 Coffee break
- 11.30 – 13.00 Perspectives on cross-linking between artificial photosynthesis and tools
 - 11.30 Molecular catalysts and devices – Wolfgang Lubitz, Mülheim
 - 12.00 Inorganic devices – Roel van de Krol, Berlin
 - 12.30 Quantum-classical coherence for tooling electron transfer – Rienk van Grondelle, Amsterdam
- 13.00 – 14.30 Lunch. During lunch the workshop organization committee refines the organization and discusses the content of the group discussions. In addition the note-takers are recruited from the groups.

Road Mapping activities

14.30 – 16.30 Work groups sessions I: Priority research directions for subprogrammes

- Group 1-4: New Materials (SP1) (Fiechter, Kurz, Robert, Styring,)
- Group 5: Physical Modeling (SP2) (Messinger/de Groot)
- Group 6: Characterization (SP3) (Montone)

All groups deliver PRD forms with connections on a mid-term time scale with H2020

16.30 - 17.30 Reporting by the chair of each group to all the audience and collecting feedback from the plenary by the note-takers of each group for the session on the 12th.

18:00 – 20:00 Buffet Dinner

Evening discussions about how to finalize the setup of the Artificial photosynthesis research society (Moderator A. Holzwarth, prospective Chair).

Wednesday June 12

9.00 – 10.00 Out of the box thinking: Three short lectures presenting unconventional approaches:

Victor Batista (Yale): Oxomanganese complexes for natural and artificial photosynthesis

Joanna Kargul (Imperial/Warsaw): Extremophile components for solar to fuel nanodevices

René Janssen (Eindhoven): Ink over ink over ink over ink....multiple junctions solar to fuels with organic solar cells

10.00 – 12.30 Work group sessions II, cross linking of PRDs, the drafts of the previous day will be exchanged between groups, and the focus will be on preparation of future call texts.

- Groups 1-4: New Materials (Robert, Fiechter, Styring, Kurz)
- Group 5: Physical Modeling (de Groot/Messinger)
- Group 6: Characterization (Montone)

12.30 – 13.30 Lunch: In the lunch break the call texts prepared by the work groups will have to be available and will be collected.

Wrap-up for the organizing committee

14.00 – 14.15 Paola Campus (ESF) Leveraging of European funding with national resources

14.15 – 16.00 Integrated Research Programme targeting AMPEA joint programme: preparation of a tentative scheme with coordination inclusive of all partners and collaborative projects targeting specific points for each SP1-3, with limited partnership; preparation of a possible call text